Unit C Study Questions

What you need to Study:

**All of Unit C Vocabulary**

cell cytoplasm cell membrane nucleus organelles evidence protist emerging diseases hypothesis epidemiologist infectious

trade-offs bacteria microbe cell nucleus cytoplasm virus cell membrane photosynthesis cellular respiration

magnify/magnification

**All Unit C Activities- 30-46**

Video Notes

Key Concepts

Microscopes

**Photosynthesis & Respiration:**

1. Which occurs in animal cells?

2. Which occurs in plant cells?

3. Write out the chemical equation of photosynthesis. (molecular equation and name)

4. Write out the chemical equation of cellular respiration. (molecular equation and name)

5. How are these two processes related?

6. Where do they occur in the cell?

Photosynthesis: Cellular respiration:

7. Why are they important?

**Diffusion:**

1. What is the part of the cell through which diffusion occurs?

2. What does selectively permeable mean?

3. What’s the difference between osmosis and diffusion?

4. How are diffusion and the cell membrane related? (Explain using Activity #40 as an example)

**Cells:**

1. What is the cell theory? (Give all 3 parts) Who came up with it?



2. What is the difference between unicellular and multicellular organisms?

3. Name 2 structures found in both plant and animal cells.

4. Name 2 structures found exclusively in plant cells.

5. How do plant and animal cells differ in the way they obtain energy?

6. How are bacterial cells unique?

7. Review all the structures and functions of the organelles found in cell

a. Which organelle normally contains a cell’s genetic material?

b. What do chloroplasts do?

c. What do mitochondria do?

d. How are golgi bodies and endoplasmic reticulum closely related? How can you tell them apart when looking at a cell?

e. How are vacuoles different in animal and plant cells?

f. What do lysosomes do?

**Organization:**

1. How are living and nonliving things classified?

2. What are the 6 levels of organization? (Activity #42 1st page)

3. What characteristics do members of the same kingdom share?

Bacteria-

Protist-

Fungus-

Plant-

Animal-

**Immunity:**

1. What are white blood cells? What job do they serve in the immune response? What are the different types?

2. What is an antigen? Where are they found? What do they do?

3. Describe the immune response from start to end. Start: Foreign substance enters body to End: phagocytes kill the foreign substance.

**Microbes:**

1. Name 2 unicellular microbes.

2. What is the difference between a carrier and a vector?

3. How does a disease spread through a population? Draw a graph showing the trend.

4. Which system of the body protects it from invading microbes? How does that system work? (explain using the following term: T-cell, B-cell, antigen, antibody, immune response)

5. What are the relative sizes of the microbes we studied or how do they compare to each other?

Which ones can you see under a school microscope?

6. How do you determine total magnification on a microscope?

7. What is the germ theory of disease?

8. How was the germ theory developed? What scientists contributed to the eventual discovery? (include at least 6 scientist in your answer)

Label the following diagrams:



